Textbook Alignment to the Utah Core – 3rd Grade Mathematics

This alignment has been completed using an "Independent Alignment Vendor" from the USOE approved list (www.schools.utah.gov/curr/imc/indvendor.html.) Yes ✓ No _____

Name of Company and Individual Conducting Alignment: Standard Media Services, LLC: David A. Johnson

A "Credential Sheet" has been completed on the above company/evaluator and is (Please check one of the following):

✓ **On record with the USOE.**

☐ **The "Credential Sheet" is attached to this alignment.**

Instructional Materials Evaluation Criteria (name and grade of the core document used to align): Grade 3 Mathematics

Title: *Houghton Mifflin Math ©2007: Grade 3* **ISBN#:** 0-618-59093-5

Publisher: Houghton Mifflin Company

Overall percentage of coverage in the *Student Edition (SE) and Teacher Edition (TE)* of the Utah State Core Curriculum: 100 %

Overall percentage of coverage in *ancillary materials* of the Utah Core Curriculum: _____%

STANDARD I: Students will understand the base-ten numeration system, place value concepts, simple fractions and perform operations with whole numbers.

Percentage of coverage in the *student and teacher edition* for Standard I: 100 %	**Percentage of coverage not in student or teacher edition, but covered in the *ancillary material* for Standard I: _____%**		
OBJECTIVES & INDICATORS	**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓

Objective 1.1: Represent whole numbers up to 10,000, comprehend place value concepts, and identify relationships among whole numbers using base-ten models and symbolic notation.				
a.	Read, write, and represent whole numbers using standard and expanded form.	SE/TE: 7, 10-11, 13, 17, 18-19, 20-22, 24, 25, 66, 198, 433		
b.	Demonstrate multiple ways to represent numbers using models and symbolic representations (e.g., fifty is the same as two groups of 25, the number of pennies in five dimes, or 75 - 25).	SE/TE: 10-11, 47, 48-49, 52-55, 61, 65, 67, 73, 76-77, 82-85, 86-89, 96, 110-111, 116-117, 120-121, 123, 137, 141, 203, 208-209, 210, 212-213, 215, 216, 245, 260-261, 264, 281, 288-289, 298		
c.	Identify the place and the value of a given digit in a four-digit numeral and round numbers to the nearest ten, hundred, and thousand.	SE/TE: 18-19, 20-22, 24, 25, 27, 32-35, 36-37, 42, 43, 49, 67, 68, 70, 80, 121, 133, 140, 142, 423, 584		
d.	Order and compare whole numbers on a number line and use the symbols <, >, ≠, and = when comparing whole numbers.	SE/TE: 1c, 28-29, 30-31, 35, 42, 43, 47, 66, 70, 73, 99, 131, 417		
e.	Identify factors and multiples of whole numbers.	SE/TE: 208, 210, 212, 216-217, 218, 224-225, 231, 232, 234, 236, 240, 242, 246, 250-251, 252-253, 256, 576, 580-581		
Objective 1.2: Use fractions to describe and compare parts of the whole.				
a.	Identify the denominator of a fraction as the number of equal parts of the unit whole and the numerator of a fraction as the number of equal parts being considered.	SE/TE: 494-495, 498-499, 500-501, 516, 517, 519, 532, 536		
b.	Define regions and sets of objects as a whole and divide the whole into equal parts using a variety of objects, models, and illustrations.	SE/TE: 494-495, 497, 498-499, 500-501, 502-505, 506-507, 508-509, 516, 517, 519, 524, 572		
c.	Name and write a fraction to represent a portion of a unit whole for halves, thirds, fourths, sixths, and eighths.	SE/TE: 494-495, 496-497, 500-501, 502-505, 516, 517, 519, 572		

d.	Place fractions on the number line and compare and order fractions using models, pictures, the number line, and symbols.	SE/TE: 520-521, 522-523, 531, 536, 537, 545, 558, 564, 565, 569, 570		
e.	Find equivalent fractions using concrete and pictorial representations.	SE/TE: 508-509, 510-511, 516, 517, 519		
Objective 1.3: Model problems involving addition, subtraction, multiplication, and division.				
a.	Demonstrate the meaning of multiplication and division of whole numbers through the use of a variety of representations (e.g., equal-sized groups, arrays, area models, and equal jumps on a number line for multiplication, partitioning and sharing for division).	SE/TE: 202-203, 205, 206-207, 208-209, 210-211, 212-215, 216, 218-219, 224-225, 228, 229, 231, 232-233, 234, 236-237, 240-241, 242-243, 246-247, 250-251, 260-261, 262-263, 264-265, 266-267, 269, 270-271, 272, 278, 282, 283, 285, 286-287, 288-289, 290, 292, 296, 298, 304, 306, 310		
b.	Use a variety of strategies and tools, such as repeated addition or subtraction, equal jumps on the number line, and counters arranged in arrays to model multiplication and division problems.	SE/TE: 202-203, 205, 206-207, 208-209, 210-211, 212-215, 216, 218-219, 224-225, 228, 229, 231, 232-233, 234, 236-237, 240-241, 242-243, 246-247, 250-251, 260-261, 262-263, 264-265, 266-267, 269, 270-271, 272, 278, 282, 283, 285, 286-287, 288-289, 290, 292, 296, 298, 304, 306, 310		
c.	Demonstrate, using objects, that multiplication and division by the same number are inverse operations (e.g., 3 x □ = 12 is the same as 12 ÷ 3 = □ and □ = 4).	SE/TE: 264-265, 266, 269, 270, 272, 282, 283, 288-289, 290, 292-293, 295, 296, 304, 306, 310, 314, 315, 320, 324		
d.	Demonstrate the effect of place value when multiplying whole numbers by 10.	SE/TE: 580-581, 587, 607		
e.	Write a story problem that relates to a given addition, subtraction, or multiplication equation, and write a number	SE/TE: 12, 39, 74, 80, 84, 88, 90-91, 92, 96, 99, 101, 104, 106, 111, 113,		

	sentence to solve a problem related to the students' environment.	114, 118, 121, 122, 125, 126, 129, 130, 135, 139, 142, 204, 209, 211, 214, 217, 221, 222, 225-226, 230, 235, 238, 241, 244, 247, 253, 254-255, 256, 274-275, 313, 581, 583, 586, 590, 593, 595, 596, 600, 603-604		
Objective 1.4: Compute and solve problems involving addition and subtraction of 3- and 4- digit numbers and basic facts of multiplication and division.				
a.	Use a variety of methods to facilitate computation (e.g., estimation, mental math strategies, paper and pencil).	SE/TE: 16, 77, 78-81, 83, 84, 88, 92, 96, 100-101, 102, 104, 105, 112-114, 115, 117, 118, 121-122, 123, 125-126, 127, 129, 132, 142, 222, 224-226, 247, 371, 385, 406, 456, 469, 526, 562, 580-581, 584-587, 602, 603-604, 606, 607, 610-611, 616-619, 630, 631, 632, 633, 638, 642		
b.	Find the sum or difference of numbers, including monetary amounts, using models and strategies such as expanded form, compensation, partial sums, and the standard algorithm.	SE/TE: 72-73, 75, 76-77, 78-81, 82-85, 86-89, 94-97, 98-99, 100-101, 102-103, 104, 105, 107, 108-109, 110-111, 112-115, 116-119, 120-123, 124-127, 128-129, 130-131, 132, 133, 137, 138-139, 142		
c.	Compute basic multiplication facts (0-10) and related division facts using a variety of strategies based on properties of addition and multiplication (i.e., commutative, associative, identity, zero, and the distributive properties).	SE/TE: 72, 76-77, 208-209, 210, 213, 224-226, 233, 234, 239, 240, 242, 252-253, 278-280, 282		
STANDARD II: Students will use patterns, symbols, operations, and properties of addition and multiplication to represent and describe simple number relationships.				

Percentage of coverage in the *student and teacher edition* for Standard II: 100 %		**Percentage of coverage not in student or teacher edition, but covered in the *ancillary material* for Standard II: _____%**		
OBJECTIVES & INDICATORS		**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓
Objective 2.1: **Create, represent, and analyze growing patterns.**				
a.	Create and extend growing patterns using objects, numbers, and tables.	SE/TE: 14-15, 22, 23, 29, 41, 69, 87, 89, 126, 210, 212, 214, 216, 218-219, 227, 232-233, 234, 237, 244, 246, 248, 250-251, 261, 262-263, 266-267, 270, 272, 280, 282, 283, 286-287, 290, 293, 296, 299, 308, 311, 320, 331, 333, 343, 361, 428-430, 431, 437, 438, 467, 580-581, 587, 590, 604, 610-611, 629		
b.	Describe how patterns are extended using manipulatives, pictures, and numerical representations.	SE/TE: 14-15, 22, 23, 29, 41, 69, 87, 89, 126, 210, 212, 214, 216, 218-219, 227, 232-233, 234, 237, 244, 246, 248, 250-251, 261, 262-263, 266-267, 270, 272, 280, 282, 283, 286-287, 290, 293, 296, 299, 308, 311, 320, 331, 333, 343, 361, 428-430, 431, 437, 438, 467, 580-581, 587, 590, 604, 610-611, 629		
Objective 2.2: Recognize, represent, and simplify simple number relationships using symbols, operations, and properties.				
a.	Represent numerical relationships as expressions, equations, and inequalities.	*Featured throughout the program; see sample citations below: SE/TE: 7, 37, 58, 68, 72-73, 88, 89, 94-96, 98, 99, 104, 105, 107, 109,		

		110, 116, 122, 126, 127, 170, 202-203, 209, 210, 214, 217, 226, 235, 238, 239, 241, 245, 247, 252-253, 267, 273, 274-275, 281, 293, 307, 311, 593, 599, 610-611, 618, 621, 627, 630		
b.	Solve equations involving equivalent expressions (e.g., 6 + 4 = Δ + 7).	SE/TE: 88, 89, 96, 103, 109, 111, 226, 239, 245, 247, 274-275		
c.	Use the >, <, and = symbols to compare two expressions involving addition and subtraction (e.g., 4 + 6 □ 3 + 2; 3 + 5 □ 16 - 9).	SE/TE: 1c, 28-29, 47, 61, 65, 66, 68, 70, 76, 88, 99, 103, 109, 122, 131, 238, 239, 241, 280-281, 291, 297, 417, 586, 593, 599, 618, 621		
d.	Recognize and use the commutative, associative, distributive, and identity properties of addition and multiplication, and the zero property of multiplication.	SE/TE: 72, 76-77, 208-209, 210, 213, 224-226, 233, 234, 239, 240, 242, 252-253, 278-280, 282		
STANDARD III: Students will describe and analyze attributes of two-dimensional shapes.				
Percentage of coverage in the *student and teacher edition* for Standard III: 100 %		**Percentage of coverage not in student or teacher edition, but covered in the *ancillary material* for Standard III: _____%**		
OBJECTIVES & INDICATORS		**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓
Objective 3.1: Describe and compare attributes of two-dimensional shapes.				
a.	Identify, describe, and classify polygons (e.g., pentagons, hexagons, octagons).	SE/TE: 410-411, 413, 418-421, 438, 439, 488		
b.	Identify attributes for classifying triangles (e.g., two equal sides for the isosceles triangle, three equal sides for the equilateral triangle, right angle for the right triangle).	SE/TE: 410-411, 422-423, 430, 431, 438, 439, 488		
c.	Identify attributes for classifying quadrilaterals (e.g., parallel sides for the parallelogram, right angles for the rectangle,	SE/TE: 410-411, 424-427, 439		

	equal sides and right angles for the square).			
d.	Identify right angles in geometric figures, or in appropriate objects, and determine whether other angles are greater or less than a right angle.	SE/TE: 414-417, 422-423, 424-427, 438, 439, 442, 488		
Objective 3.2: Demonstrate the meaning of congruence through applying transformations.				
a.	Demonstrate the effect of reflection, translation, or rotation using objects.	SE/TE: 450-453, 458, 459, 488, 492		
b.	Determine whether two polygons are congruent by reflecting, translating, or rotating one polygon to physically fit on top of the other.	SE/TE: 442-443, 444-446, 447, 450-453, 458, 459, 488, 492		
STANDARD IV: Students will select and use appropriate units and measurement tools to solve problems.				
Percentage of coverage in the *student and teacher edition* for Standard IV: 100 %		**Percentage of coverage not in student or teacher edition, but covered in the *ancillary material* for Standard IV: _____%**		
OBJECTIVES & INDICATORS		**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓
Objective 4.1: Select and use appropriate tools and units to estimate and measure length, weight, capacity, time, and perimeter of two-dimensional figures.				
a.	Describe the part-whole relationships (e.g., 3 feet in a yard, a foot is 1/3 of a yard) between metric units of length (i.e., centimeter, meter), and among customary units of length (i.e., inch, foot, yard), capacity (i.e., cup, quart), and weight (i.e., pound, ounce).	SE/TE: B5, 360-363, 368-369, 370-371, 372-375, 378, 379, 382-383, 384-385, 389, 398, 399, 402, 403, 404		
b.	Measure the length of objects to the nearest centimeter, meter, half- and quarter-inch, foot, and yard.	SE/TE: B4-B5, 353, 354-357, 358-359, 360-363, 367, 378, 379, 382-383, 384-385, 398, 399, 404		

c.	Measure capacity using cups and quarts, and measure weight using pounds and ounces.	SE/TE: 368-369, 370-371, 372-375, 398, 399, 404, 408		
d.	Identify the number of minutes in an hour, the number of hours in a day, the number of days in a year, and the number of weeks in a year.	SE/TE: 329, 330-331, 340-343, 350, 408, 644		
e.	Describe perimeter as a measurable attribute of two-dimensional figures, and estimate and measure perimeter with metric and customary units.	SE/TE: 410, 462-463, 464-467, 472, 473, 474-475, 482, 483, 485, 489, 491, 492		
Objective 4.2: Solve problems involving measurements.				
a.	Determine simple equivalences of measurements (e.g., 30 inches = 2 feet and 6 inches; 6 cups = 1½ quarts; 90 min. = 1 hr. 30 min.).	SE/TE: 330, 340, 360-362, 368-369, 370-371, 372-375, 378, 379, 383, 384-385, 386-388, 396, 397, 398, 399, 401, 402, 403, 405, 501, 631, 644		
b.	Compare given objects according to measurable attributes (i.e., length, weight, capacity).	SE/TE: 356, 360, 363, 364-365, 369, 370-371, 372-373, 378, 396, 480		
c.	Solve problems involving perimeter.	SE/TE: 410, 462-463, 464-467, 469, 472, 473, 474-475, 482, 483, 485, 489, 491, 492		
d.	Determine elapsed time in hours (e.g., 7:00 a.m. to 2:00 p.m.).	SE/TE: 336-338, 339, 359, 401, 408, 481		
STANDARD V: Students will collect and organize data to make predictions and identify basic concepts of probability.				
Percentage of coverage in the *student and teacher edition* for Standard V: 100 %		**Percentage of coverage not in student or teacher edition, but covered in the *ancillary material* for Standard V: _____%**		
OBJECTIVES & INDICATORS		**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓
Objective 5.1: Collect, organize, and display data to make predictions.				

a.	Collect, read, represent, and interpret data using tables, graphs, and charts, including keys (e.g., pictographs, bar graphs, frequency tables, line plots).	SE/TE: B1, 6, 7, 8, 10, 12, 16, 17, 18, 19, 20, 22, 23, 26, 27, 28, 30, 31, 32, 33, 35, 36, 38-41, 42, 44, 46, 49, 56-57, 59, 62, 67, 69, 74, 106, 112, 114, 118, 119, 135, 139, 141, 144, 146-147, 148-149, 150-153, 154-157, 158-161, 162-163, 164-167, 168-171, 172, 173, 174-175, 178-180, 184-186, 190, 191, 193, 194, 196, 197, 204, 207, 210, 212, 214, 215, 216, 218, 219, 220, 221, 222, 223, 226, 230, 232, 234, 237, 244, 246, 248, 250-251, 253, 255, 258, 261, 262-263, 266-267, 269, 270, 272, 276, 280, 283, 284, 286, 290, 293, 294, 296, 299, 302, 303, 308, 311, 323, 328, 329, 330, 335, 339, 340-343, 344-345, 346-349, 352, 353, 355, 356, 357, 358, 360-363, 366, 367, 368, 370-371, 372, 374, 380, 381, 382-383, 386, 389, 392, 394, 403, 404-405, 406-407, 420, 430, 431, 434, 462-463, 477, 491, 503, 504, 511, 512-513, 520, 522, 526, 538, 543, 547, 551, 552, 553, 559, 560, 561, 562, 571, 584, 586, 590, 596, 597, 601, 604, 608, 613, 618, 629, 630, 635, 637, 644, 648, 673, 677, 679		
b.	Make predictions based on a data display.	SE/TE: 174, 181, 184-186, 191, 197		
Objective 5.2: Objective 2: Identify basic concepts of probability.				

a.	Describe the results of events using the terms “certain,” “likely,” “unlikely,” and “impossible.”	SE/TE: 175, 176-177, 178, 180, 185-187, 189, 190, 191		
b.	Conduct simple probability experiments, record possible outcomes systematically, and display results in an organized way (e.g., chart, graph).	SE/TE: 174, 178-181, 184-186, 188-189, 191, 199		
c.	Use results of simple probability experiments to describe the likelihood of a specific outcome in the future.	SE/TE: 174, 178-181, 182-183, 184-186, 187, 188-189, 190, 191, 197, 199, 407		